Nima A. Dastmalchi

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EDUCATION

University of California - Los Angeles (UCLA)   Expected June 2024
Bachelor of Science, Computer Science
- GPA: 4.0 / 4.0
- Relevant Coursework: Data Structures, Algorithms and Complexity, Operating Systems, Artificial Intelligence, Software Construction, Theory of Computation, Probability and Statistics, Graphics
- Entrepreneurship Officer at the Computer Science Honor Society (Upsilon Pi Epsilon)

TECHNICAL SKILLS

- **Languages:** C, C++, Python, JavaScript, Java, Lisp, Haskell, Shell
- **Technologies:** Git, Linux, React Native, React, Node.js, Google Mock, Catch2

EXPERIENCE

Amazon   June 2022 – September 2022
Software Development Engineer Intern
- Worked on development of UI frameworks critical for application development on Amazon devices
- Designed, developed, and tested a multithreading module to improve performance of device apps (C++)
- Debugged and resolved multithreading issues such as deadlock and race conditions (Catch2, Google Mock)

Caltrans   July 2019 – April 2020
Information Technology Intern
- Imaged and encrypted computers in accordance with Caltrans' policies and procedures (SCCM)
- Resolved hardware and software issues; documented the problem-solving process for future use

PROJECTS

Scramboard (React, Node, Python, Firebase)   January 2022 – March 2022
Full-stack Developer
- Developed a client-server web app to allow users to collaborate on creating pixel art in real-time
- Utilized React to build a modular front-end platform and React-Router to navigate pages
- Implemented REST APIs in Node.js in the backend, connecting to Firebase to store a pixel board

Solar Power Simulation Research (C++)   April 2020 – September 2020
Developer and Researcher (UC Berkeley)
- Developed ray-tracing algorithms to simulate Concentrated Solar Power (CSP) systems
- Utilized physics and mathematics to calculate the power and temperature output of CSP systems
- Presented a poster at HTCC conference to inform about computer science applications in solar power
- Published a research paper in the 2020 edition of *Think You?!* academic journal with over 1,000 views (https://thinkyou.bayhonors.org/images/2020Symposium/NimaDastmalchi_SolarPowerCapture.pdf)

Autonomous Drone Development (Java)   May 2021 – January 2022
- Developed an Android app, connecting to a DJI drone to perform computations for autonomous flight
- Employed computer vision for object detection using the drone's onboard camera (OpenCV)

Plug-in Development (Java)   December 2020 – January 2021
- Developed multithreaded plug-ins for Minecraft using Spigot API, enjoyed by other players

Chat Moderation Bot (JavaScript)   October 2020 – November 2020
- Developed a Discord bot to identify "toxic" messages using a machine learning model
- Deployed the program onto the computer science club's Discord server, resulting in 95% accuracy